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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,744	04/15/2004	Maynard Cowman JR.	2044	7035

7590 09/09/2004

ROBERT W. HARRIS  
5906 PAINTED PONY DR. NW  
ALBUQUERQUE, NM 87120

EXAMINER

JULES, FRANTZ F

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/824,744

Applicant(s)

COWMAN, MAYNARD

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26 is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7 and 24-29 is/are rejected.
- 7) ☒ Claim(s) 2, 6, 8-23 and 30-34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/31/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1-25, 27-34 are objected to because of the following informalities:

In claim 1, line 16, the word "a" should be deleted in front of the word said.

Appropriate correction is required.

Claims 2-25, 27-34 are objected as being dependent upon objected base claim 1.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-5, 7, 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maki et al (US 3,960,090) in view of Nelson (US 3,792,665).

Claims 1, 4-5, 7, 26-29

Maki et al disclose a linear electric motor for transportation of at least one vehicle along a road, of the type having motor parts which are both vehicle parts of said motor mounted on each said vehicle, and road parts of said motor mounted along said road, comprising a set of powerable electric coils (6A, 6B, 7A, 7B, 9, 10A, 10B), said set being selected from the group consisting of all of said vehicle parts, all of said road parts, and all of said motor parts; said vehicle parts, road parts and road having a configuration such that motion of said vehicle along said road sequentially brings each of said vehicle parts into close proximity with successive ones of said road parts;

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A source of pulsating electric current, connected by synchronized switching means to power any pair of motor parts, said pair of motor parts being one vehicle part and one road part, only while any said pair of motor parts are in position to generate an electromagnetic force upon said vehicle in a desired direction, where said desired direction is the forward direction for acceleration or reverse direction for braking.

Maki et al disclose all of the features as listed above but does not disclose a linear electric motor comprising a spacing arrangement and control means for spacing of said motor parts. The general concept of providing a spacing arrangement and control means for spacing of motor parts in a linear electric motor is well known in the art as illustrated by Nelson which discloses the teaching a control system which regulate the spacing between successive movable structures, see abstract section. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Maki et al to include the use of a spacing arrangement control means for spacing of the motor parts in his advantageous linear electric motor as taught by Nelson in order to improve the performance of the system by increasing the magnetic or propulsion force.

4. Claim 3, 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maki et al (US 3,960,090) and Nelson (US 3,792,665), as applied to claim 1 above, and further in view of Heidelberg et al (US 4,931,677).

Claims 3, 24-25

Maki et al and Nelson teach all the limitations of claims 3, 24-25 except for a linear electric motor comprising superconducting magnets on the vehicle. The general concept of providing vehicle with superconducting magnets in a transportation system is

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well known in the art as illustrated by Heidelberg et al which disclose the teaching of superconducting magnets on a vehicle. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Maki et al to include the use of superconducting magnets on the vehicle of his advantageous linear electric motor as taught by Heidelberg et al in order to achieve an increase in magnetic field intensity or propulsion force of the vehicle.

***Allowable Subject Matter***

5. Claims 2, 6, 8-23, 30-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Fujiwara et al, He et al, and Brien et al are cited to show related linear electric motor with coils for supplying power to both vehicle and motor parts.

Nakamura et al are cited to show related a power supply system for a linear motor.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

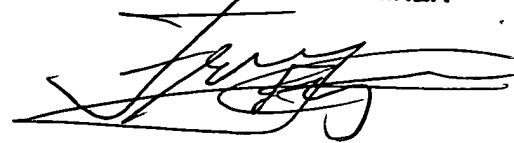
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules  
Primary Examiner  
Art Unit 3617

FFJ

September 2, 2004

**FRANTZ F. JULES**  
**PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read 'Frantz F. Jules', written over a horizontal line.